

**We Claim:**

1. An intelligent ID card holder for an intelligent ID card comprising:

5 a receptacle for receiving the intelligent ID card, the receptacle electrically communicating with the intelligent ID card by contacts or RF antenna, the receptacle including a cut away section for viewing a portion of the ID card;

a memory in the holder or on the card to hold stored data representative of features of the authentic user of the card;

10 a sensor for collecting data representative of features of the current user of the card; and

a microcomputer to compare the stored data with the sensed data to determine whether the current user is the authentic user.

15 2. The interface of claim 1 wherein the sensor comprises a sensor selected from the group consisting of fingerprint sensor, CCD camera, chemical sensor, and microphone.

3. The interface of claim 1 wherein the intelligent ID card is configured by the interface.

20 4. The interface of claim 1 wherein the intelligent ID card is a smartcard.

5. An intelligent ID card holder to authenticate a user comprising:

a receptacle including two major surfaces with an opening formed between the two surfaces to accept the intelligent ID card into the sleeve, wherein one of the surfaces has a cutaway section for viewing the ID card;

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a plurality of contacts exposed on the inside of the receptacle to make electrical contact with the intelligent ID card;

flash memory coupled to the microcomputer to hold user feature data;

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a user feature sensor mounted on the outside of the receptacle and coupled to the microcomputer to authenticate a user;

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a programmed microcomputer mounted on or within one of the surfaces to control the intelligent ID card holder, and to compare a user's sensed feature to a stored user feature, wherein a positive comparison enables the intelligent ID card, or communicates authorization to an outside device or process based on the positive comparison; and

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a battery mounted within the one of the surfaces to power the microcomputer, flash memory, user feature sensor, and indicator

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6. The holder of claim 5 wherein the user feature sensor is a finger print sensor mounted on the outside of the receptacle and coupled to the microcomputer to authenticate a user.

7. The holder of claim 5 wherein the user feature sensor is a camera sensor mounted on the outside of the receptacle and coupled to the microcomputer to authenticate a user.

5                   8. The holder of claim 7 wherein the camera is a CCD camera.

9. The holder of claim 5 wherein the user feature sensor is a chemical sensor mounted on the outside of the receptacle and coupled to the microcomputer to authenticate a user.

10                   10. The holder of claim 5 further comprising a visual indicator to indicate a positive match.

15                   11. The holder of claim 5 further comprising an audio indicator to indicate a positive match.

12. The holder of claim 5 further comprising an LCD screen to communicate information to the user.

20                   13. The holder of claim 12 wherein the LCD screen displays labels in the vicinity of one or more smart keys to show the function of the one or more keys.

14. The holder of claim 12 wherein the LCD screen had touch sensitive areas and additionally serves as a key pad for user input.

5 15. The holder of claim 5 further comprising a radio frequency (RF) section and an antenna to transmit a signal to the outside device.

16. The holder of claim 15 wherein the signal is a secure code.

17. The holder of claim 15 wherein the outside device is a door lock.

10 18. The holder of claim 15 wherein the outside device is a building security system.

15 19. The holder of claim 5 further comprising one or more keys mounted on the outside of one of the surfaces of the receptacle and coupled to the microcomputer for user input.

20. The holder of claim 5 further comprising a microphone on the outside of one of the surfaces of the receptacle and coupled to the microcomputer for user input.

20 21. The holder of claim 5 further comprising a video camera on the outside of one of the surfaces of the receptacle and coupled to the microcomputer for user input.

22. The holder of claim 5 further comprising a universal serial port (USB) connection to another computer.

23. The holder of claim 5 wherein the intelligent ID card is a smartcard.

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24. A method of using an intelligent ID card holder to authenticate the user of a intelligent ID card comprising:

inserting an intelligent ID card into the ID card holder;

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sensing a feature of the user;

comparing the sensed feature to a stored image of the user's feature;

authenticating the user; and

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acting on the authentication.

25. The method of claim 24 further comprising entering a personal identification (PIN) code for additional verification of identity.

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26. The method of claim 24 further comprising indicating, visually or aurally, the status of the verification of identity.

27. The method of claim 24 wherein acting comprises transmitting a positive user authentication to an outside device.

28. The method of claim 27 further comprising permitting access based on reception of the positive user authentication.

5           29. The method of claim 24 wherein acting comprises permitting the user to log into a computer system.

30. The method of claim 24 wherein acting comprises logging the user into a user account automatically based on the authentication.

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31. An authentication system using an intelligent ID card holder coupled to a computer network to compare sensed user features to stored features on a network comprising:

5 a receptacle for receiving the intelligent ID card, the receptacle electrically communicating with the intelligent ID card by contacts or RF antenna, the receptacle including a cut away section for viewing a portion of the ID card;

a sensor for collecting data representative of features of the current user of the card;

10 a transceiver for transmitting and receiving the data representative of features and the feature comparisons to and from the computer network; and

a microcomputer to process the comparisons of features made by the computers on the network.

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